

What is claimed is:

1. A laser scanning unit comprising:

at least one light source emitting at least one light beam;

a polygon mirror that deflects the at least one light beam emitted by the at  
5 least one light source;

an image focusing system that focuses an image corresponding  
to each light beam deflected from the polygon mirror onto the surface of a  
plurality of photoconductive drums; and

an incident optical system disposed between the at least one light source and  
10 the polygon mirror, the incident optical system comprising an infinite optical system  
along a main scanning direction and a finite optical system along a sub-scanning  
direction.

2. The laser scanning unit of claim 1, wherein the incident optical system  
15 further comprises:

a first cylinder lens that converges the light beams along the sub-scanning  
direction and directly transmits the light beams along the main scanning direction in  
terms of proceeding paths of said light beams; and

a second cylinder lens that converges the light beams that passes through the  
20 first cylinder along into the sub-scanning direction and directly transmits said beams  
along the main scanning direction.

3. The laser scanning unit of claim 2, wherein the first and second  
cylinder lens are made of a glass material.

4. The laser scanning unit of claim 2, wherein the first cylinder lens is  
made of a glass material and the second cylinder lens is made of a plastic material.

5. The laser scanning unit of claim 2, further comprising a plurality of  
30 reflecting mirrors that change proceeding paths of light beams to project the at least  
one light beam onto the polygon mirror with the same incidence angles.

6. The laser scanning unit of claim 5, wherein the reflecting mirrors are  
flat and reflection-coated.

7. The laser scanning unit of claim 1, wherein the light source has at least one light-emitting point.

5 8. The laser scanning unit of claim 1, further comprising a separator installed between the polygon mirror and the image focusing system, which separates the light beams deflected by the polygon mirror